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UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH ADMINISTRATION BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE WASHINGTON 25, D. C.

In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING JUNE 9, 1945 (Seventh Cotton Insect Survey Report for 1945)

In general cotton made fair progress. Weevils occur in sufficient numbers to threaten serious damage unless checked by hot, dry weather. There is little change in the cotton flea hopper situation. Reports indicate an average flea hopper year in Texas where control measures are always necessary in some areas. Damage from aphids and thrips is increasing. No authentic records have been received this season of the appearance of cotton leafworms in the United States and adjacent areas in Mexico. Often the first leafworms are found in southern Texas during May. The first bale of cotton for this season was reported ginned in Starr County, Texas, on June 7.

BOLL WEEVIL

TEXAS: Emergence of 111 weevils from the hibernation cages at Waco makes a total of 962 or 4.8% survival to date. Weevils were found in the 65 fields inspected in this area at the average rate of 165 per acre, which is twice as many as last week and the same as two weeks.ago. On the corresponding dates, 190 weevils per acre were found in 1944, 23 weevils in 1943, 180 weevils in 1942, and 88 weevils in 1941.

Infestation records in 279 fields in 28 southern counties averaged 21.3% punctured squares as compared to 23% last week. No infestation was found in 7% of the fields; less than 10% punctured squares in 36% of the fields; from 11 to 25% in 25% of the fields; from 26 to 50% in 23% of the fields; and above 50% punctured squares in 9% of the fields. The infestation in 7 southernmost counties averaged 28% and in 19 Gulf Coast and east central counties averaged 16.5%. The prolonged drought in the lower Valley has been very beneficial in checking weevil development. Insecticides were being used in 48 of the 279 fields examined.

Plants examined in 228 fields too small for squaring in 28 counties showed an average of 240 weevils per acre.

OKLAHOMA: Cotton too small for square examinations. Plant examinations in 151 fields in 18 counties averaged 45 weevils per acre. At this time last year 132 weevils per acre were found on small plants. Boll weevils were most abundant in McCurtain, Bryan, and Choctaw Counties.

LOUISIANA: Weather conditions have been favorable for the cultivation of cotton. In most fields cotton has made good growth during the past week and is in a fair state of cultivation. Boll weevil emergence continued high in the hibernation cages at Tallulah. By June 8 over 10% of the boll weevils placed in the cages last fall had emerged. This is a much higher percentage of survival than during any of the past 14 years, except 1941 when over 11% of the weevils had emerged by this date, and in 1937 when over 12% had emerged. In the cotton fields the weevils were found at an average rate of 213 per acre, which has only been exceeded during the corresponding week twice in the past 10 years—that is, in 1943 and 1941. (over)

MISSISSIPPI: Weevils were found in 24 of the 126 fields examined in 13 Delta counties. The infested farms had from 50 to 550 weevils per acre, with an average of 150 per acre, the same as at this time last year. No weevils were found in 5 northern and eastern Delta counties.

ALABAMA: On June 5 W. A. Ruffin, Extension Entomologist, reported more weevils in the cotton fields of southeastern Alabama than at any time this early in the season since 1939.

GEORGIA: Reports indicate that boll weevils are abundant in southern Georgia. The highest infestations reported during the past week were from a field in Early County with 60% of the squares punctured and a field in Seminole County with 50% punctured. In Dooly County infestations ranged from 3 to 30%; in Bulloch County from 0 to 23%. Other infestations reported were Screven County, 20%; Crisp County, 24%; Tift County, 10%, and Wheeler County, 14%.

SOUTH CAROLINA: Cool, cloudy weather during the week further retarded cotton growth and was favorable for weevils. Weevils are still emerging from hibernation and the 82 collected in the 1/5-acre trap plot makes a total of 377 weevils this year as compared to 102 in 1944, 238 in 1943, and 175 in 1942. The first square examinations in 58 fields in 15 eastern counties averaged 15.5% infestation. Last year the first examinations for the week ending June 10 averaged 7% punctured squares. The infestation was less than 10% in 28% of the fields, between 10 and 25% in 60% of the fields, and above 26% in 12% of the fields.

Plant examinations in 117 fields where cotton was too small for squares averaged 160 boll weevils per acre. Weevils were present in 113 of these fields.

COTTON APHID

Aphids were reported from 210 of the cotton fields examined in 29 counties of Texas with control measures being used in the lower Rio Grande Valley.

Aphids were also reported from many fields in Louisiana, Mississippi, Alabama, Georgia, and South Carolina, but only a few heavy infestations were reported.

COTTON FLEA HOPPER

No flea hoppers emerged this week from the 29 hibernation cages at Waco, Texas. The emergence is about complete and to date 35,887 flea hoppers have emerged as compared to 64,000 in 1944; 13,000 in 1943; 11,000 in 1942; and 61,000 in 1941 from the same number of plants. In 452 fields examined in 49 Texas counties flea hoppers averaged 6.7 per 100 terminal buds. No flea hoppers were found in 25% of the fields; less than 25 per 100 terminals in 70% of the fields; and more than 25 per 100 terminals in 5% of the fields. Insecticides were being used in 27 of the fields, extending as far north as Matagorda County.

In 151 fields examined in Oklahoma an average of 0.6 flea hoppers per 100 terminal buds were found. Eighty percent of the fields were not infested and no infestations requiring control were reported.

OTHER PLANT BUGS

Adults of the tarnished plant bug and rapid plant bug were noticed in many fields in the vicinity of Tallulah, La., and Stoneville, Miss. In the Salt River Valley of Arizona Lygus spp. and Creontiades femoralis were abundant on alfalfa and other plants and the prospects are that these insects will be more abundant on cotton than in 1943. In the Santa Cruz Valley near Tucson, Arizona, the stinkbugs Euschistus impictiventris, Chlorochroa sayi, and Thyanta custator, and the plant bugs Creontiades femoralis and Adelphocoris superbus continue to be more numerous than they were a year ago at this time.

BOLLWORM

Bollworms were reported as doing some damage in 17 fields in 10 counties in southern Texas and also in Screven County, Georgia:

THRIPS

In the vicinity of Tallulah, La., thrips injury to cotton appears to be lighter than during any of the past four years. Counts of these insects indicate that they are only about one-third as abundant as during the same week in 1944, 1943, and 1942.

Cotton still appears abnormal in the fields damaged by thrips earlier in the season in South Carolina.

Thrips damage is still serious in young cotton in the Mississippi Delta but is disappearing in older cotton.

Thrips damage reported from Hunt and Rains Counties, Texas.

George J. Harrison of the U. S. Cotton Field Station, Shafter, Calif., reported on June 1 that flower and onion thrips damage was very general and serious to cotton throughout the San Joaquin Valley.

MISCELLANEOUS INSECTS

Severe outbreaks of grasshoppers continue in Bell, Coryell, Falls, Hill, McLennan, Milam, and Travis Counties in central Texas. Poison bait is being used but many grovers are late in observing the presence of hoppers and have lost some cotton. Damaging infestations to feed and cotton crops were reported from Caddo, Comanche, Cotton, Jefferson, and Stephens Counties, Oklahoma.

The yellow-striped armyworm (Prodenia praefica) was reported by H. M. Armitage of the California State Department of Agriculture as destroying 150 acres of newly-planted cotton in Kern County during May. Trenching and baiting were used to protect adjacent fields.

On June 6, George J. Harrison, Shafter, Calif., reported that inquiries about the control of this insect had ceased.

The cotton leaf perforator was reported from several fields of stub cotton in the Santa Cruz Valley of Arizona.

Click beetles occurred on the cotton plants in a few fields near Tallulah, La.

Prepared June 13, 1945.